

Notice of Allowability

Application No.

10/057,225

Examiner

Michael Trinh

Applicant(s)

FORBES ET AL.

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment and RCE filed April 11, 2005.
2. ☒ The allowed claim(s) is/are 1-38.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20050418.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Drawing Objection.


Michael Trinh
Primary Examiner

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DETAILED ACTION

*** This office action is in response to Applicant's RCE filed 4/11/2005 and Amendment submitted 3/14/05. Claims 1-38 are pending.

Drawings Objection

1. The proposed drawing correction filed June 02, 2003 to add new drawing Figures 4A to 9 are approved by Examiner. However, the annotated term "(added)" must be removed from the added drawing Figures. In order to avoid abandonment of the application, applicant is required to submit Corrected Drawings as Replacement Sheets for the proposed added drawing Figures 4A to 9 submitted on June 02, 2003 without the term "(added)". See 37 CFR 1.121(d)(1). Failure to timely submit the Replacement Sheets will result in the abandonment of the application.

Allowable Subject Matter

2. Claims 1-38 are allowed.

3. The following is a statement of reasons for the indication of allowable subject matter:

Applicant's amendment submitted March 14, 2005 and convincing remarks of record have overcome the rejections. The references including Mazure (5,308,782), Mukai (5,804,848), Colinge (Article), etc., of record, alone or in combination, do not fairly anticipatively disclose each and every aspect of the claimed method for fabricating a transistor, or fairly make a prima facie obvious case of the claimed method as recited in independent claims, which method, for example, of claim 1 comprises vertically forming a body region on the first source/drain region as a fully depleted structure; forming a second source/drain region on the body region to form a column on the substrate, the body region having opposing sidewall surfaces on the column; forming a first gate on a first one of the opposing sidewall surfaces after forming the column, the first gate separated from the first one of the opposing sidewall surfaces by a first oxide layer; and forming a second gate on the second one of the opposing sidewall surfaces after forming the column, the second gate separated from the second one of the opposing sidewall surfaces by a second oxide layer, wherein vertically forming the body region includes vertically growing an

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epitaxial layer such that the body region is formed having a width and a doping concentration such that a threshold voltage is substantially independent of bulk charge in the body region in transistor operation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael M. Trinh whose telephone number is (571) 272-1847. The examiner can normally be reached on M-F: 8:30 Am to 5:00 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone numbers for the organization where this application proceeding is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.
Oacs-7&15



Michael Trinh
Primary Examiner



Approved
M.T.

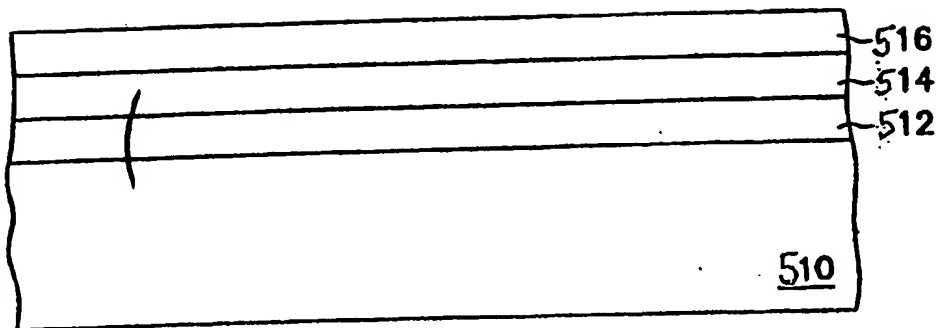


FIG. 4A (Added)

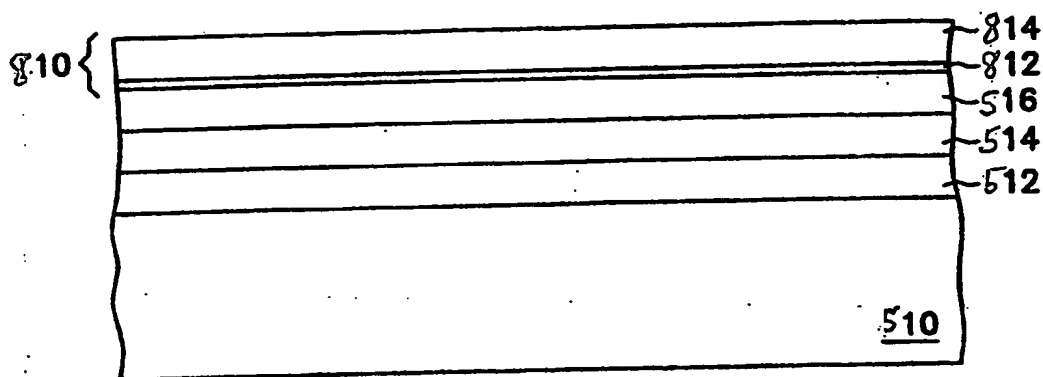


FIG. 4B (Added)

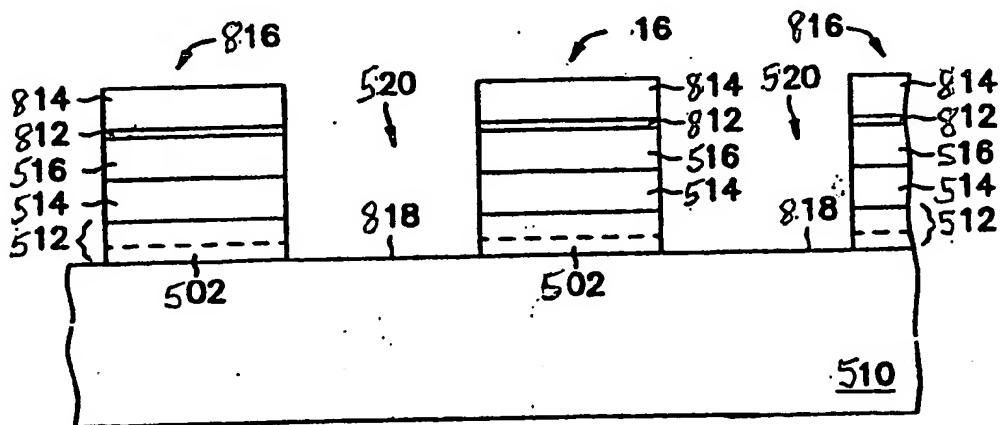


FIG. 4C (Added)